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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,328	02/09/2004	Masao Kato	00862.023-460	8917
5514 7590 04/03/2008 FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112				
EXAMINER				
PARK, CHAN S				
ART UNIT		PAPER NUMBER		
2625				
MAIL DATE		DELIVERY MODE		
04/03/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/773,328

Applicant(s)

KATO ET AL.

Examiner

CHAN S. PARK

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Response to Amendment

1. Applicant's amendment was received on 12/28/07, and has been entered and made of record. Currently, **claims 20-51** are pending.

Response to Arguments

2. Applicant's arguments with respect to **claims 20-51** have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

3. Claims are objected to because of the following informalities:
Claim 20, line 5, "the function information" should be -- ~~the~~ function information --;
Claim 20, line 13, "function information" should be -- the function information --;
Claim 20, line 10, "an image file" should be -- the image file --;
Claim 32, line 8, "an image file" should be -- the image file --;
Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 50 and 51 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 50 and 51 are drawn to

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functional descriptive material NOT claimed as residing on a computer readable

medium. MPEP 2106.IV.B.1(a) (Functional Descriptive Material) states:

"Data structures not claimed as embodied in a computer-readable medium are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer."

"Such claimed data structures do not define any structural or functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized."

Also, refer to page 53 of the Interim Guideline.

Claims 50 and 51, while defining a program product, do not define a "computer-readable medium" and is thus non-statutory for that reason. A computer program product can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The examiner suggests amending the claim to state, "A computer-readable medium encoded with a computer program..." in order to make the claim statutory.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 20, 24-26, 30-32, 35, 39-41, 45-47, 50 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. U.S. Patent Application Pub.

No. 2001/0048534 (hereinafter Tanaka) in view of Breidenbach et al. U.S. Patent Application Pub. No. 2003/0084085 (hereinafter Breidenbach).

With respect to claim 20, Tanaka discloses a printing system (figs. 1 & 8) in which an image sensing apparatus (digital camera) and a printing apparatus (printer) directly communicate with each other, and said printing apparatus prints an image transmitted from the image sensing apparatus (S146 in fig. 8), wherein said image sensing apparatus comprises:

- a generation unit configured to generate a data file (print file 140 in fig. 7), which is independent of an image file, describing data for image correction (paragraph 61); and

- a first transmission unit configured to transmit the image file and the data file to said printing apparatus (transmitting the print file in step 116 & image file in S144);

- said printing apparatus comprises:

- a second reception unit configured to receive the image file and the data file transmitted by said first transmission unit (receiving the print file in step 116 & image file in S144);

- a correction unit configured to correct image data of the image file received by said first reception unit on the basis of the data file (correcting the image file in accordance with the print condition defined in fig. 7 & paragraph 108); and

- a printing unit configured to print an image in accordance with the image data corrected by said correction unit (printing the image file in accordance with the print condition defined in fig. 7 & paragraph 108),

wherein the data file is transmitted from said image sensing apparatus to said printing apparatus before the image file is transmitted from said image sensing apparatus to said printing apparatus (note that the print file is transmitted before the image file in accordance with fig. 8).

Tanaka, however, does not explicitly teach a first reception unit configured to receive function information of the printing apparatus from the printing apparatus and a second transmission unit for transmitting the function information of said printing apparatus from said printing apparatus to said image sensing apparatus.

Breidenbach discloses a printing system in which an image sensing apparatus and a printing apparatus directly communicate with each other, wherein said image sensing apparatus receives function information of the printing apparatus from the printing apparatus and generates the print file in accordance with the function information received (digital camera receiving the capability information of the printer in paragraph 46).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the printing system of Tanaka to include the capability exchange method as taught by Breidenbach.

The suggestion/motivation for doing so would have been to provide the user with the printer capability information in order to select appropriate print job settings. For example, with this capability exchange method, the user would not select a printer setting that is not supported by the printer.

Therefore, it would have been obvious to combine Tanaka with Breidenbach to obtain the invention as specified in claim 20.

With respect to claim 24, Tanaka discloses the system wherein said printing apparatus determines a parameter for correction in accordance with the data file and corrects the received image using the determined parameter (correcting the image file in accordance with the print condition defined in fig. 7 & paragraph 108).

With respect to claim 25, Tanaka discloses an image sensing apparatus which can communicate with a printing apparatus, said image sensing apparatus comprising:

a generation unit configured to generate a data file (print file 140 in fig. 7), which is independent of an image file, describing data for image correction (paragraph 61);
and

a transmission unit configured to transmit the image file and the data file to said printing apparatus (transmitting the print file in step 116 & image file in S144);

wherein the data file is transmitted from said image sensing apparatus to said printing apparatus before the image file is transmitted from said image sensing apparatus to said printing apparatus (note that the print file is transmitted before the image file in accordance with fig. 8).

Tanaka, however, does not explicitly teach a reception unit configured to receive function information of the printing apparatus from the printing apparatus.

Breidenbach discloses a printing system in which an image sensing apparatus and a printing apparatus directly communicate with each other, wherein said image sensing apparatus receives function information of the printing apparatus from the

printing apparatus and generates the print file in accordance with the function information received (digital camera receiving the capability information of the printer in paragraph 46).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the printing system of Tanaka to include the capability exchange method as taught by Breidenbach.

The suggestion/motivation for doing so would have been to provide the user with the printer capability information in order to select appropriate print job settings. For example, with this capability exchange method, the user would not select a printer setting that is not supported by the printer.

Therefore, it would have been obvious to combine Tanaka with Breidenbach to obtain the invention as specified in claim 25.

With respect to claim 26, Tanaka discloses the image sensing apparatus further comprising a designation unit configured to designate an image to be transmitted to said printing apparatus (designating/constructing file shown in fig. 7), wherein said transmission unit transmits the data file to said printing apparatus before the image designated by said designation unit to transmitted to said printing apparatus (note that the print file is transmitted before the image file in accordance with fig. 8).

With respect to claim 30, Tanaka discloses a printing apparatus which can communicate with an image sensing apparatus and print an image received from the image sensing apparatus, said printing apparatus comprising:

a reception unit configured to receive an image file and a data file independently from the image sensing apparatus, where the data file has been generated by the image sensing apparatus (receiving the print file in step 116 & image file in S144);

a correction unit configured to correct image data of the image file received by said reception unit on the basis of the data file received by said reception unit (correcting the image file in accordance with the print condition defined in fig. 7 & paragraph 108); and

a printing unit configured to print an image in accordance with the image data corrected by said correction unit (printing the image file in accordance with the print condition defined in fig. 7 & paragraph 108),

wherein the data file is transmitted from the image sensing apparatus to said printing apparatus before the image file is transmitted from the image sensing apparatus to said printing apparatus (note that the print file is transmitted before the image file in accordance with fig. 8).

Tanaka, however, does not explicitly teach a transmission unit for transmitting the function information of said printing apparatus from said printing apparatus to said image sensing apparatus.

Breidenbach discloses a printing system in which an image sensing apparatus and a printing apparatus directly communicate with each other, wherein said image sensing apparatus receives function information of the printing apparatus from the printing apparatus and generates the print file in accordance with the function

information received (digital camera receiving the capability information of the printer in paragraph 46).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the printing system of Tanaka to include the capability exchange method as taught by Breidenbach.

The suggestion/motivation for doing so would have been to provide the user with the printer capability information in order to select appropriate print job settings. For example, with this capability exchange method, the user would not select a printer setting that is not supported by the printer.

Therefore, it would have been obvious to combine Tanaka with Breidenbach to obtain the invention as specified in claim 30.

With respect to claim 31, Tanaka discloses the printing apparatus according to claim 30, wherein said correction unit determines a parameter for correction in accordance with the data file and corrects the received image using the determined parameter (correcting the image file in accordance with the print condition defined in fig. 7 & paragraph 108).

With respect to claim 32, Tanaka discloses the printing apparatus according to claim 30, further comprising:

a print instruction reception unit configured to receive a print instruction information describing file names of an image file and a data file used for correcting an image of the image file (receiving file shown in fig. 7);

a request unit configured to request the image sensing apparatus to transmit a file to said printing apparatus (S104~S106 in fig. 8)

wherein, in said request unit, the image sensing apparatus transmits the data file before requesting an image file (note that the print file is transmitted before the image file in accordance with fig. 8).

With respect to claim 35, arguments analogous to those presented for claim 20, are applicable.

With respect to claim 39, arguments analogous to those presented for claim 24, are applicable.

With respect to claims 40 and 50, arguments analogous to those presented for claim 25, are applicable.

With respect to claim 41, arguments analogous to those presented for claim 26, are applicable.

With respect to claims 45 and 51, arguments analogous to those presented for claim 30, are applicable.

With respect to claims 46 and 47, arguments analogous to those presented for claims 31 and 32, are applicable.

Claim Rejections - 35 USC § 103

6. Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Tanaka and Breidenbach as applied to claim 20 above, and further

in view of Ichikawa et al. U.S. Patent Application Publication No. 2004/0201727 (hereinafter Ichikawa).

With respect to claim 21, the combination discloses the system according to claim 20, but it does not explicitly disclose said image sensing apparatus further comprising an extraction unit configured to analyze a sensed image and extract a feature amount from the sensed image, wherein said generation unit generates the data file describing the feature amount extracted by said extraction unit.

Ichikawa discloses an image sensing apparatus further comprising an extraction unit configured to analyze a sensed image and extract a feature amount from the sensed image, wherein said generation unit generates the data file describing the feature amount extracted by said extraction unit to notify the printer for printing (paragraphs 130~134).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the system of Tanaka to include the extraction unit as taught by Ichikawa.

The suggestion/motivation for doing so would have been to provide detail information about the sensed image for applying appropriate image processing at the printer for printing.

Therefore, it would have been obvious to combine three references to obtain the invention as specified in claim 21.

With respect to claim 22, Ichikawa discloses said image sensing apparatus further comprising a designation unit configured to designate an image to be transmitted

to said printing apparatus, wherein said extraction unit extracts the feature amount from the image designated by said designation unit (paragraphs 130~134).

With respect to claim 23, Ichikawa discloses said image sensing apparatus wherein said extraction unit generates a histogram of brightness, saturation, or hue as the feature amount (paragraphs 130~134).

7. Claims 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Tanaka and Breidenbach as applied to claim 25 above, and further in view of Ichikawa.

With respect to claims 27-29, arguments analogous to those presented for claims 21-23, are applicable.

8. Claims 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Tanaka and Breidenbach as applied to claim 30 above, and further in view of Ichikawa.

With respect to claims 33 and 34, arguments analogous to those presented for claims 21-23, are applicable. Note that the printing apparatus receives the results of analysis of the image file in paragraphs 130~134 of Ichikawa.

9. Claims 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Tanaka and Breidenbach as applied to claim 35 above, and further in view of Ichikawa.

With respect to claims 36-38, arguments analogous to those presented for claims 21-23, are applicable.

10. Claims 42-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Tanaka and Breidenbach as applied to claim 40 above, and further in view of Ichikawa.

With respect to claims 42-44, arguments analogous to those presented for claims 21-23, are applicable.

11. Claims 48 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Tanaka and Breidenbach as applied to claim 30 above, and further in view of Ichikawa.

With respect to claims 48 and 49, arguments analogous to those presented for claims 21-23, are applicable. Note that the printing apparatus receives the results of analysis of the image file in paragraphs 130~134 of Ichikawa.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **CHAN S. PARK** whose telephone number is (571)272-7409. The examiner can normally be reached on M-F 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (571) 272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Edward L. Coles/
Supervisory Patent Examiner, Art Unit 2625

/CHAN S PARK/
Examiner, Art Unit 2625

March 27, 2008